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ABSTRACT

Future school sites are projected for Saginaw, Michigan, through 1980. The projections are based on the following factors--(1) number of students presently enrolled, (2) how students will be grouped within residential areas, and (3) how students will be grouped within schools. Total population trends, school census data, and public school enrollment data are presented in tabular and graphic form. (FS)

ED036981

# SCHOOL SITE PROGRAM 1959 - 1980

SAGINAW TOWNSHIP MICHIGAN

ADMINISTRATION

| | | |
|---|---|---|
| GEORGE E. MILLS | - | SUPERINTENDENT OF SCHOOLS |
| A. MILLS WILBER | - | ASSISTANT SUPERINTENDENT FOR RESEARCH AND ADMINISTRATION |
| BURTON K. THORN | - | ASSISTANT SUPERINTENDENT FOR INSTRUCTION |
| DALE KLEIN | - | ADMINISTRATION ASSISTANT |

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EF 000 500

CAUDILL, ROWLETT AND SCOTT
ARCHITECTS, ENGINEERS AND PLANNERS

C. HERBERT PASEUR - PROJECT ARCHITECT

AUGUST, 1959

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## BACKGROUND

THE CITIZENS OF SAGINAW TOWNSHIP SHOWED THEIR CONFIDENCE IN THE FUTURE OF THEIR COMMUNITY BY APPROVING A $6,975,000.00 BOND ISSUE FOR SCHOOL CONSTRUCTION ON JUNE 8, 1959.

APPROPRIATING MONIES FOR SCHOOL CONSTRUCTION IS THE FIRST STEP IN A LONG RANGE PROGRAM TO EDUCATE FUTURE STUDENTS OF THE COMMUNITY. SCIENTIFIC PLANNING FOR THE BASIC NEEDS OF THESE STUDENTS IS THE NEXT STEP IN EVALUATING A LONG RANGE PROGRAM.

THE BOARD OF EDUCATION, THE SCHOOL ADMINISTRATION, AND THE CITIZENS OF SAGINAW WERE ASSISTED BY CAUDILL, ROWLETT AND SCOTT TO CREATE A WORKING PLAN TO EVALUATE POPULATION TRENDS, GROWTH FACTORS, SCHOOL CENSUS TRACTS AND PROJECTED ENROLLMENT FOR THE SCHOOL DISTRICT.

RESEARCH MATERIAL INCLUDED IN THIS REPORT WAS COMPILED BY THE CITY PLANNING DEPARTMENT, MICHIGAN STATE UNIVERSITY, AND CRS PLANNING TEAM.

## THE PROBLEM

THE BASIC PROBLEM IS TO LOCATE SCHOOL SITES FOR THE PRESENT ENROLLMENTS AND TO PREDICT THE NUMBERS AND LOCATION OF SCHOOL SITES NEEDED FOR PROJECTED ENROLLMENTS THROUGH 1980.

TO DO THIS THESE FACTORS MUST BE DETERMINED:

HOW MANY STUDENTS

HOW ARE THEY GROUPED

WHERE DO THEY LIVE

THE STUDIES IN THIS REPORT ATTEMPT TO ANSWER THESE THREE QUESTIONS AND ALSO INTERPRET THE ANSWERS IN TERMS OF PROPOSED SITES.

## HOW MANY STUDENTS

TO DETERMINE THE NUMBER OF STUDENTS LIVING IN THE TOWNSHIP DURING THE NEXT TWENTY YEARS, THE FOLLOWING FACTORS WERE CONSIDERED IN MAKING A PROJECTION.

1. POPULATION TRENDS PROJECTED TO 1980.
2. SCHOOL CENSUS (0-19 YEARS) TRENDS PROJECTED TO 1980.
3. PUBLIC SCHOOL ENROLLMENT TRENDS PROJECTED TO 1980.
4. MICHIGAN STATE UNIVERSITY STUDIES PROJECTING ENROLLMENT THROUGH 1965.
5. GROWTH PATTERN EXPECTED BY LAND PLANNING FACTORS.

## POPULATION - SAGINAW TOWNSHIP

THE SAGINAW TOWNSHIP SCHOOL DISTRICT IS LOCATED ON THE WEST SIDE OF THE CITY OF SAGINAW. SINCE 1950, THE TOWNSHIP HAS EXPERIENCED A PHENOMENAL RESIDENTIAL GROWTH INFLUENCED BY THE FOLLOWING FACTORS:

1. GOOD STREET AND HIGHWAY FACILITIES.
2. EXTENSION OF UTILITY MAINS.
3. GOOD SUBDIVISION DEVELOPMENT.
4. A NATURAL DIRECTION OF RESIDENTIAL GROWTH.

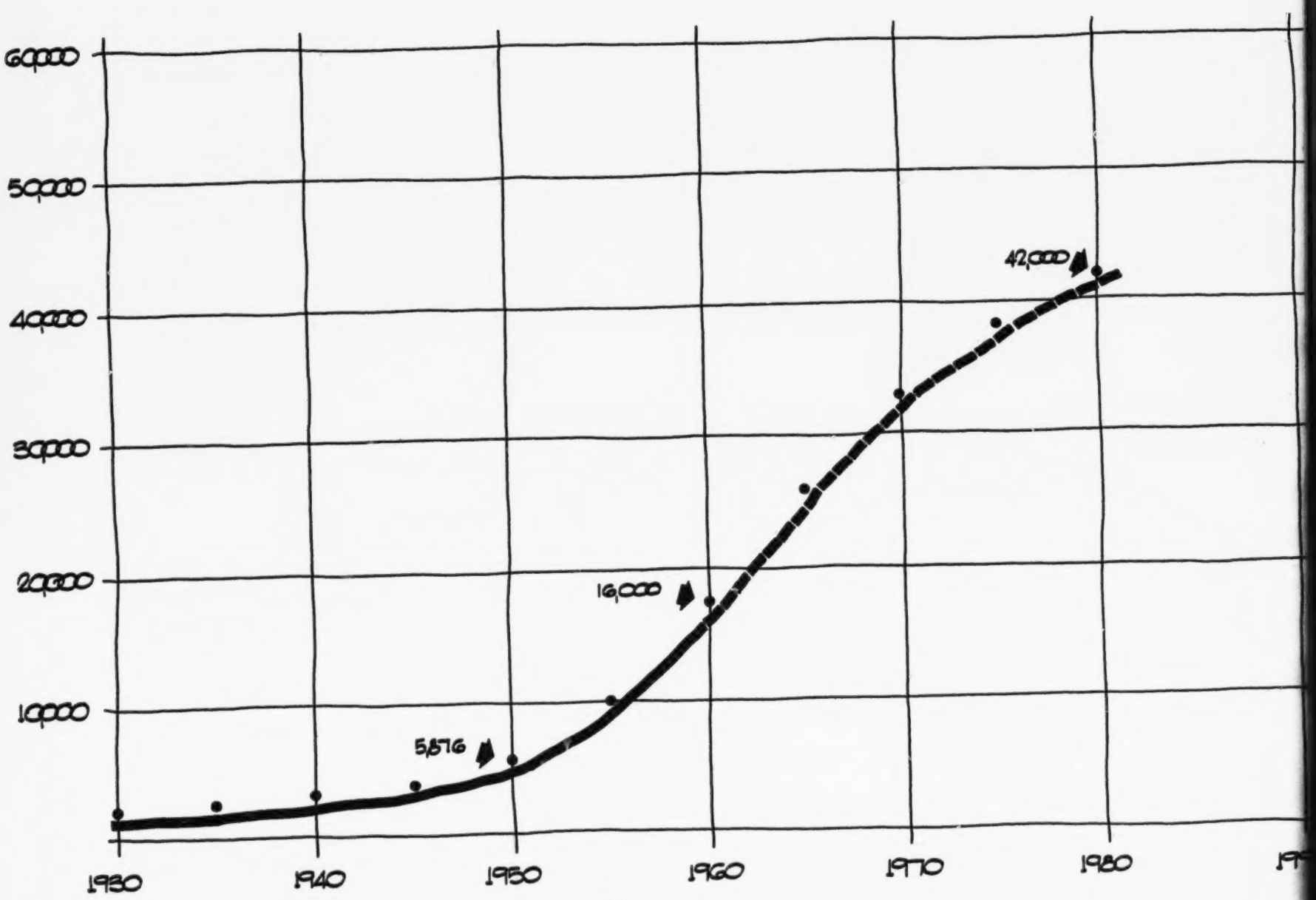
THE POPULATION IS EXPECTED TO TRIPLE THE 1950 CENSUS BY 1960, AND TO DOUBLE THAT BY 1970. THE POPULATION STUDIES PREPARED BY THE CITY PLANNING DEPARTMENT OF SAGINAW UTILIZED THE FOLLOWING DATA SOURCES:

1. NATURAL INCREASE - MIGRATION 1945 - 1958 AVERAGE ANNUAL RATE PROJECTED.
2. AVERAGE ANNUAL RATE OF GROWTH OF SCHOOL CENSUS 1945 - 1958 PROJECTED.
3. MICHIGAN RURAL NON-FARM GROWTH (64.7%) FOR 1940 - 1950 PROJECTED.
4. RATE OF RESIDENTIAL CONSTRUCTION BETWEEN 1950 - 1958 PROJECTED.
5. AVERAGE ANNUAL RATE OF GROWTH SINCE 1945 PROJECTED.

THE POPULATION PROJECTION OF THE TOWNSHIP HAS

A DIRECT RELATION TO THE PUBLIC IMPROVEMENTS THAT ARE NEEDED IN THIS AREA. THESE INCLUDE FLOOD AND DRAINAGE CONTROL, UTILITY EXTENSION, TRANSPORTATION FACILITIES, ZONING AND BUILDING CODE ENFORCEMENT. THIS PROJECTION ASSUMES AN AVERAGE RATE OF DEVELOPMENT OF THESE NEEDED PUBLIC IMPROVEMENTS.

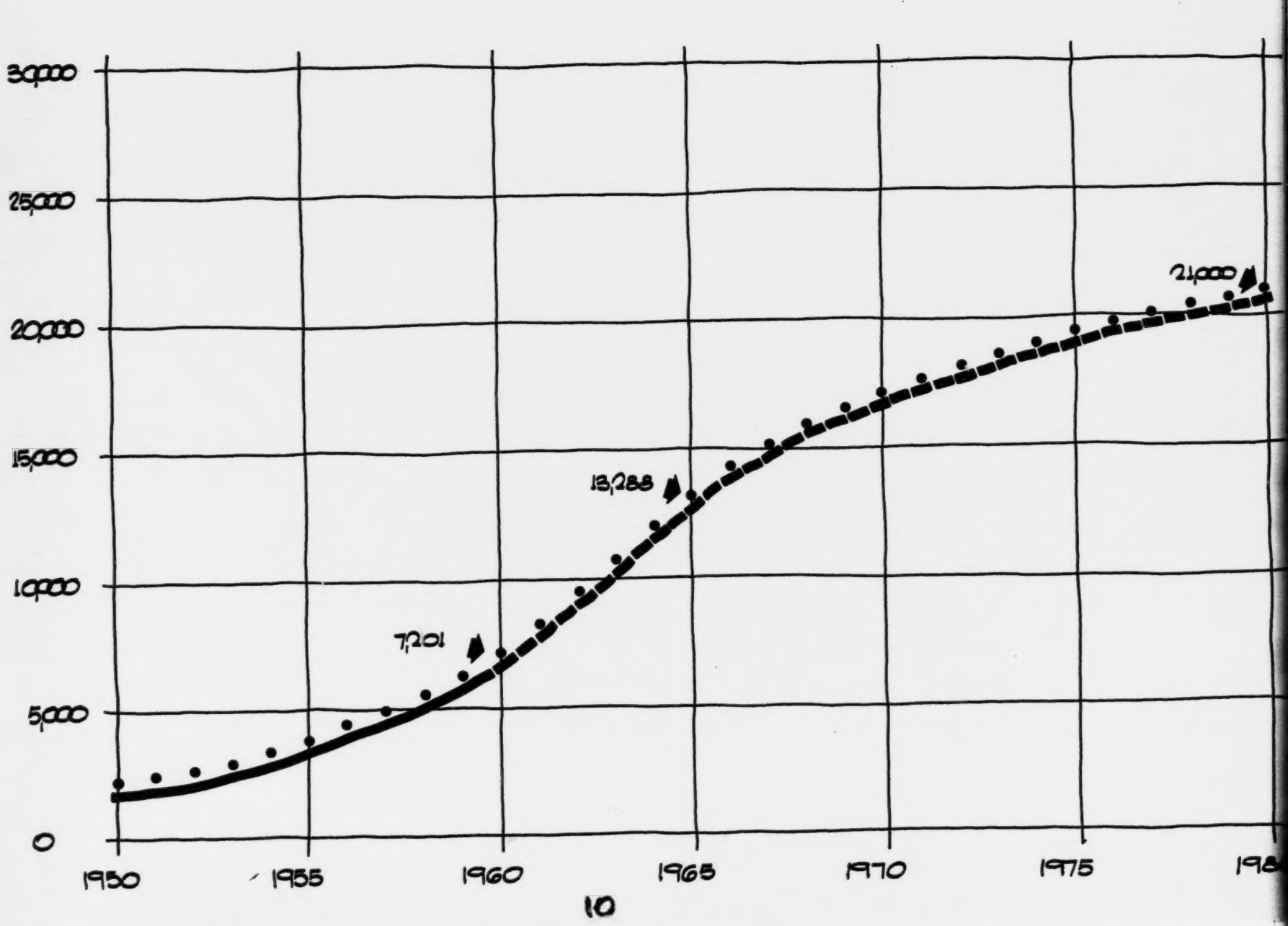
# POPULATION - SAGINAW TOWNSHIP



## SCHOOL CENSUS

USING THE STUDY PREPARED BY MICHIGAN STATE UNIVERSITY, 7,201 CHILDREN (0-19 YEARS) ARE PREDICTED TO BE IN THE SAGINAW TOWNSHIP AREA IN 1960. THIS FIGURE ALMOST DOUBLES IN 1965 WITH 13,288 AND CLIMBS TO 21,000 IN 1980. THE PROJECTION INDICATES THAT THE SCHOOL CENSUS IS APPROXIMATELY ONE-THIRD OF THE SAGINAW TOWNSHIP POPULATION FOR THE YEARS CONSIDERED.

# SCHOOL CENSUS 0-19 YEARS



## PUBLIC SCHOOL ENROLLMENT

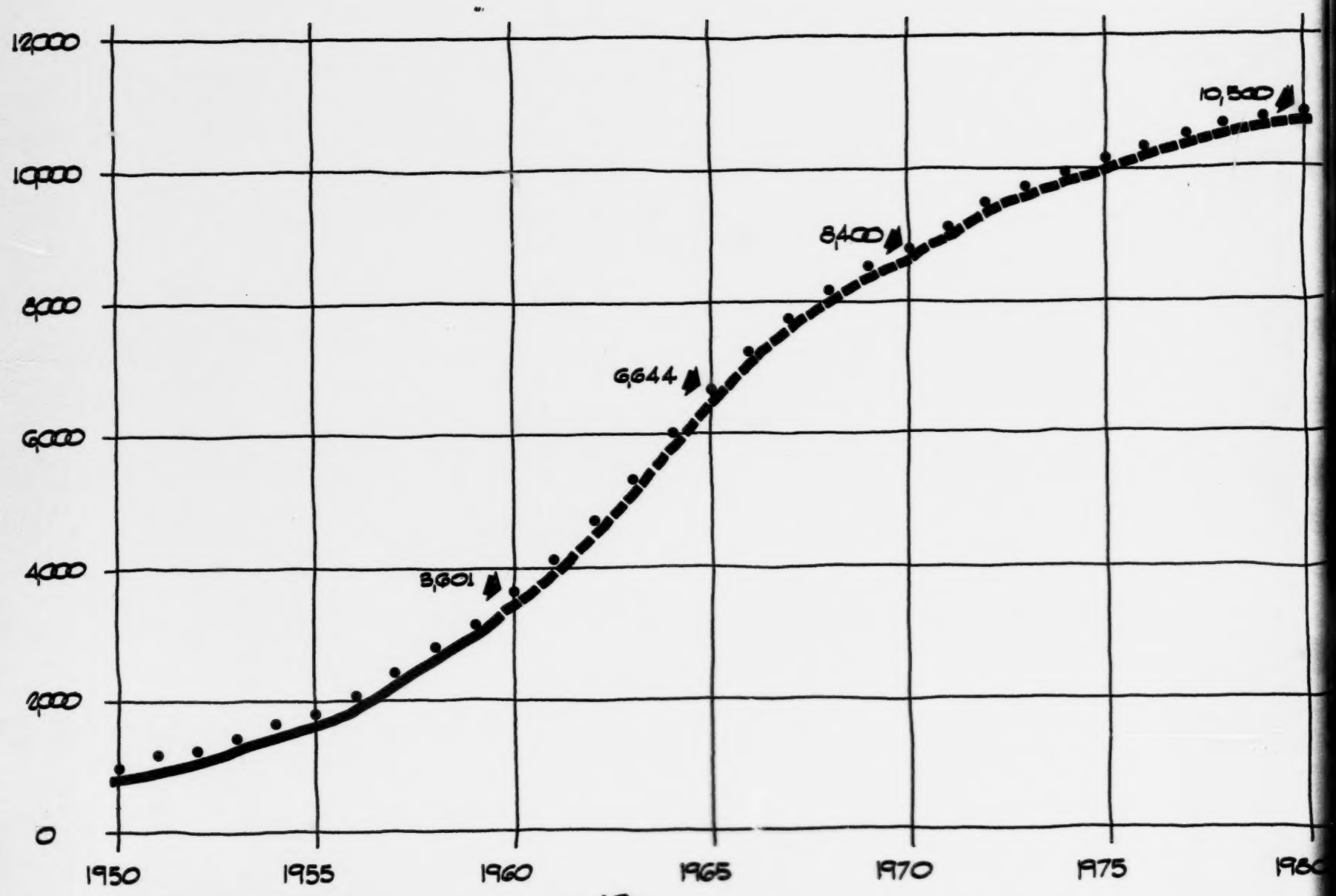
THE PROJECTION TREND ESTABLISHED BY MICHIGAN STATE UNIVERSITY FROM THEIR STUDY OF 1950 - 1965 HAS BEEN PROJECTED TO 1980. HERE WE SEE THAT THE PUBLIC SCHOOL ENROLLMENT IS APPROXIMATELY ONE HALF OF THE SCHOOL CENSUS FOR THE SAME PERIODS.

IN 1960 THERE SHOULD BE 3,601 STUDENTS ENROLLED IN SCHOOL, WITH A 100% INCREASE BY 1965. CONSERVATIVE PROJECTIONS BEYOND 1965 TAKE INTO CONSIDERATION THE RATE IN WHICH PUBLIC IMPROVEMENTS AND PRIVATE DEVELOPMENT WILL OCCUR.

COMPARING THIS PROJECTION WITH THE SAGINAW TOWNSHIP POPULATION CHART, WE FIND THAT THERE IS A RELATIONSHIP IN 1960 OF ONE PUBLIC SCHOOL ENROLLMENT FOR EVERY 4.5 PERSONS. THIS RATIO HAS BEEN REDUCED TO 1 TO 4 IN 1980 BECAUSE OF INCREASED MATURITY OF THE FAMILIES IN THE AREA.

IF PRIVATE SCHOOL ENROLLMENT DOES NOT INCREASE IN PROPORTION TO THE SCHOOL CENSUS, THE FIGURES FOR THE PUBLIC SCHOOL ENROLLMENT WILL BE CONSERVATIVE.

# PUBLIC SCHOOL ENROLLMENT



## STUDENT GROUPING

THE PRECEDING GRAPHS HAVE SHOWN THE APPROXIMATE ANSWER ON HOW MANY CHILDREN, THE NEXT STEP IS TO DETERMINE HOW THEY WILL BE GROUPED. THIS SECTION IS DIVIDED INTO:

EDUCATIONAL GROUPING

NEIGHBORHOOD AND COMMUNITY GROUPING

## EDUCATIONAL GROUPING

THE BOARD OF EDUCATION, ACTING ON THE RECOMMENDATION OF THE SUPERINTENDENT, HAS ADOPTED THE K-4, 5-8, 9-12 SYSTEM OF GROUPING.

### K-4 SCHOOLS

THESE ARE "NEIGHBORHOOD SCHOOLS" AND SHOULD BE LOCATED IN THE CENTER OF THE NEIGHBORHOOD THEY SERVE. THEIR SIZE WILL VARY FROM 200 TO 400 STUDENTS, DEPENDING UPON THE NUMBER OF STUDENTS IN THE VICINITY.

### 5-8 SCHOOLS

THESE ARE "COMMUNITY SCHOOLS" AND SHOULD BE LOCATED IN THE CENTER OF THE AREA THEY SERVE. THEY ARE INTENDED TO SERVE TWO OR THREE OF THE NEIGHBORHOOD SCHOOLS AND THEIR SIZE WOULD VARY FROM 500 TO 700 STUDENTS.

### 9-12 SCHOOLS

THESE ARE "AREA SCHOOLS" AND ARE INTENDED TO SERVE TWO OR THREE OF THE COMMUNITY SCHOOLS. THEIR SIZE WILL VARY FROM 1,200 TO 1,600 STUDENTS.

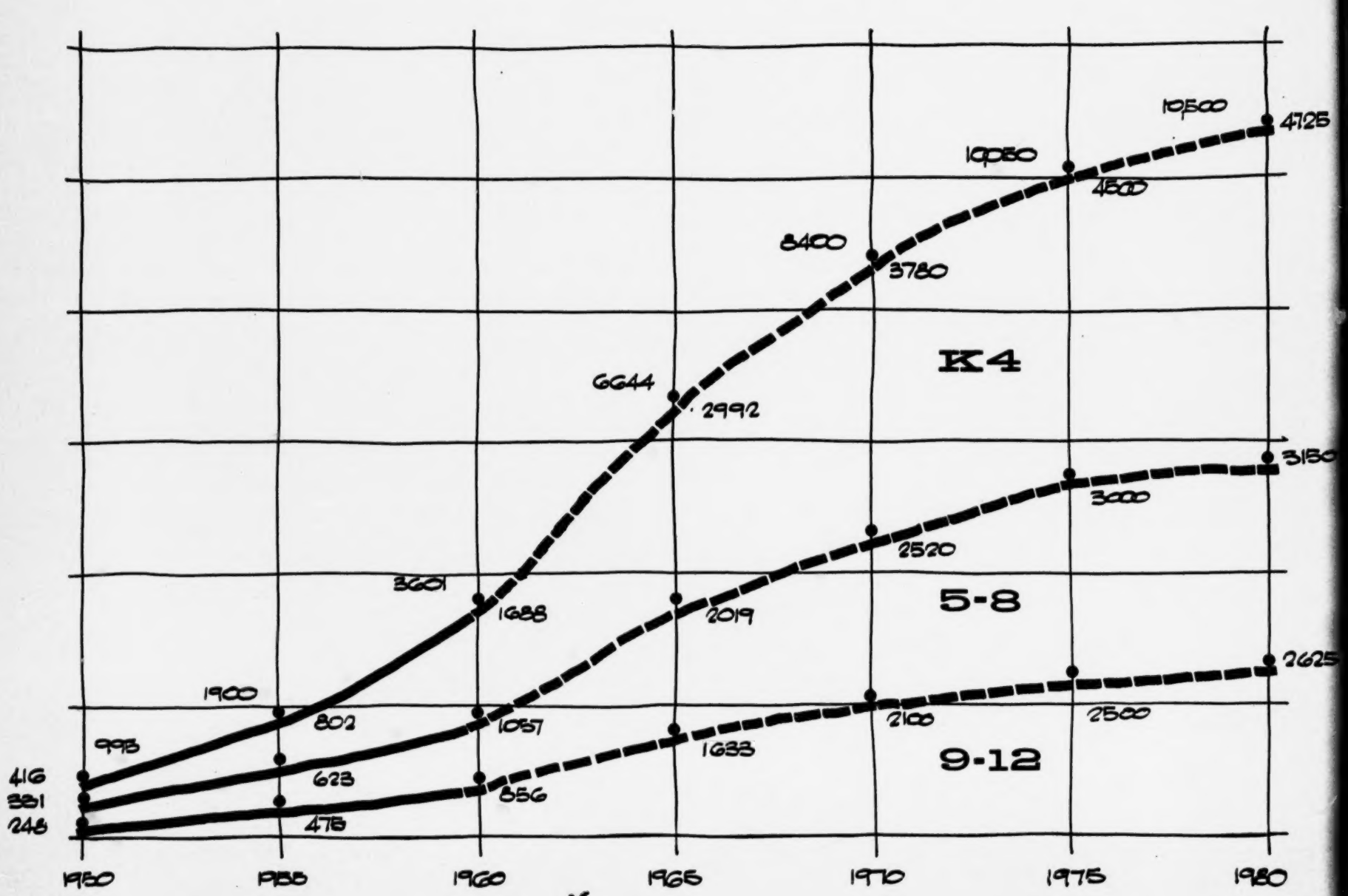
## PUBLIC SCHOOL ENROLLMENT PROJECTIONS
## 1950 - 1980

GRADE GROUPINGS: K-4, 5-8, AND 9-12, PROJECTED FROM 1950 TO 1980 HAVE BEEN PLOTTED ON THE FOLLOWING GRAPH.

IT SHOWS THAT 45% OF THE TOTAL ENROLLMENT IS IN THE K-4 GROUP, 30% IN THE 5-8 GROUP, AND 25% IN THE 9-12 GROUP.

THE PROJECTIONS FROM 1959 TO 1965 ARE ENROLLMENTS TAKEN FROM THE MICHIGAN STATE UNIVERSITY STUDY. THESE FIGURES ARE BASED ON KNOWN CHILDREN, AGES ONE AND UNDER TO NINETEEN, NOW LIVING IN THE TOWNSHIP.

# GROUPING - NUMBER OF SCHOOLS



## NEIGHBORHOCD AND COMMUNITY GROUPING

ESTABLISHING NEIGHBORHOOD AND COMMUNITY BOUNDARIES IN TERMS OF SCHOOL SITES REQUIRED THE CONSIDERATION OF MANY FACTORS. THE FOLLOWING DETAILS WILL AFFECT THE BOUNDARIES OF THE COMMUNITIES SHOWN ON THE SUCCEEDING PAGES:

1. PHYSICAL CHARACTERISTICS
   - A. STREETS AND THOROUGHFARES
   - B. RAILROADS
   - C. EXISTING SCHOOLS
   - D. NATURAL CHARACTERISTICS
2. SIZE
3. POPULATION
4. EXISTING AND FUTURE LAND AVAILABLE
5. TRAVELING DISTANCE
   - A. PEDESTRIAN
   - B. MOBILE
6. POPULATION CHARACTERISTICS

## TOWNSHIP DIVISION

THE NEXT MAP SHOWS TWO OF THE MAJOR BOUNDARIES THAT DEFINE THE COMMUNITIES.

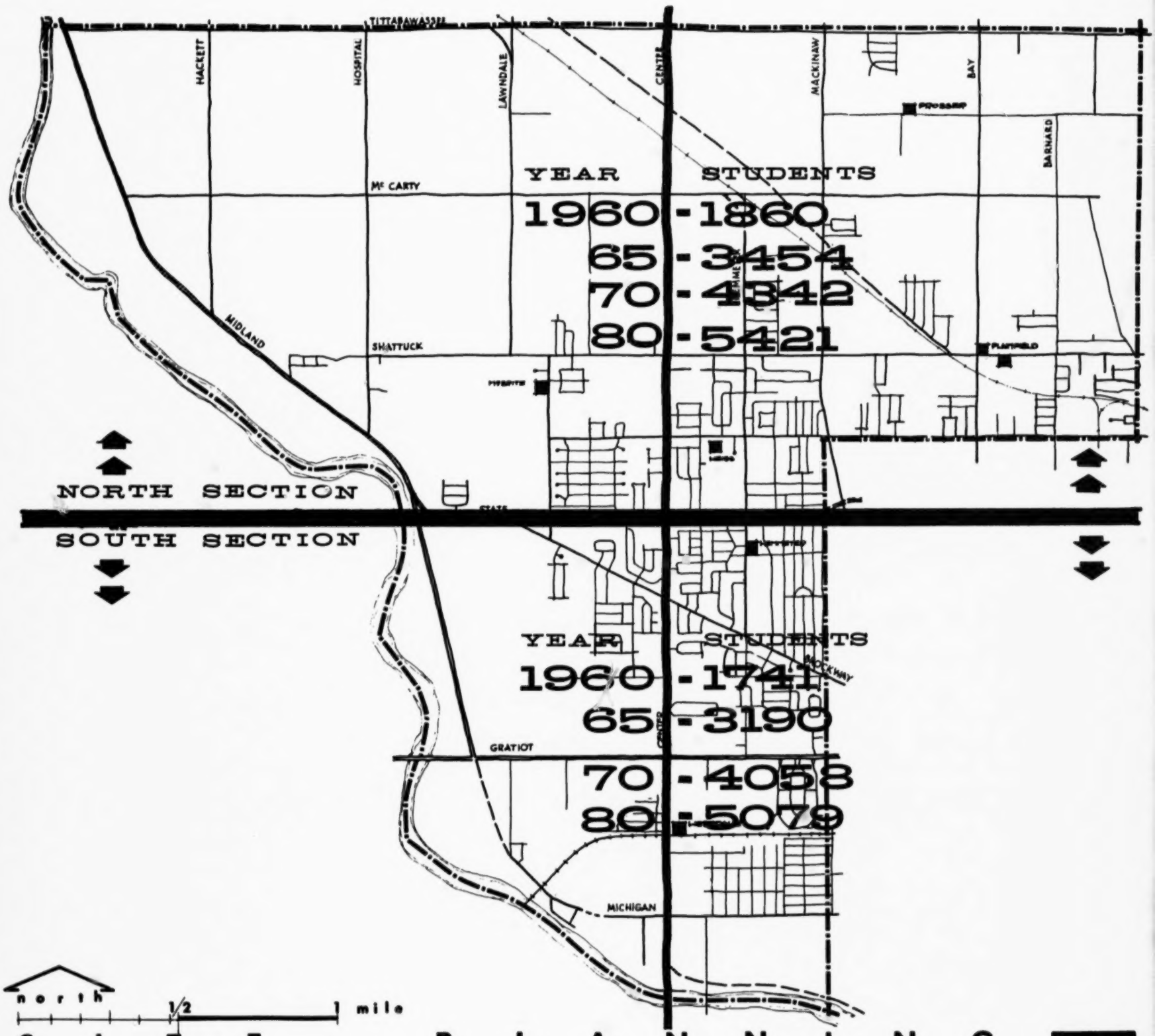
CENTER ROAD WILL DEVELOP INTO A MAIN THOROUGHFARE BECAUSE IT IS THE ONLY THROUGH ROAD THAT RUNS IN THE NORTH-SOUTH DIRECTION ACROSS THE TOWNSHIP.

STATE STREET (U. S. HIGHWAY 10) IS A MAJOR ARTERY. IT IS THE MAIN LINK BETWEEN SAGINAW TOWNSHIP AND THE CITY OF SAGINAW. THE HIGHWAY WILL EVENTUALLY BE RE-ROUTED TO BYPASS THE TOWNSHIP. STATE STREET WILL ALWAYS BE HEAVILY TRAVELED BY LOCAL TRAFFIC BECAUSE IT BISECTS THE NORTH AND SOUTH SECTIONS OF THE TOWNSHIP.

THE DIVISION OF THE NORTH AND SOUTH INFLUENCED THE BOARD OF EDUCATION TO PLAN EACH SECTION INDEPENDENTLY.

IT WAS LOGICAL THAT A HIGH SCHOOL BE PLANNED FOR BOTH SIDES OF STATE STREET. THIS SEPARATION ALSO INFLUENCED THE PLANNING OF ELEMENTARY AND MIDDLE SCHOOLS SO A MINIMUM OF STUDENTS WOULD HAVE TO CROSS A MAIN THOROUGHFARE.

# TOWNSHIP DIVISION




SITE PLANNING

SAGINAW TOWNSHIP SCHOOLS

SAGINAW TOWNSHIP, MICHIGAN

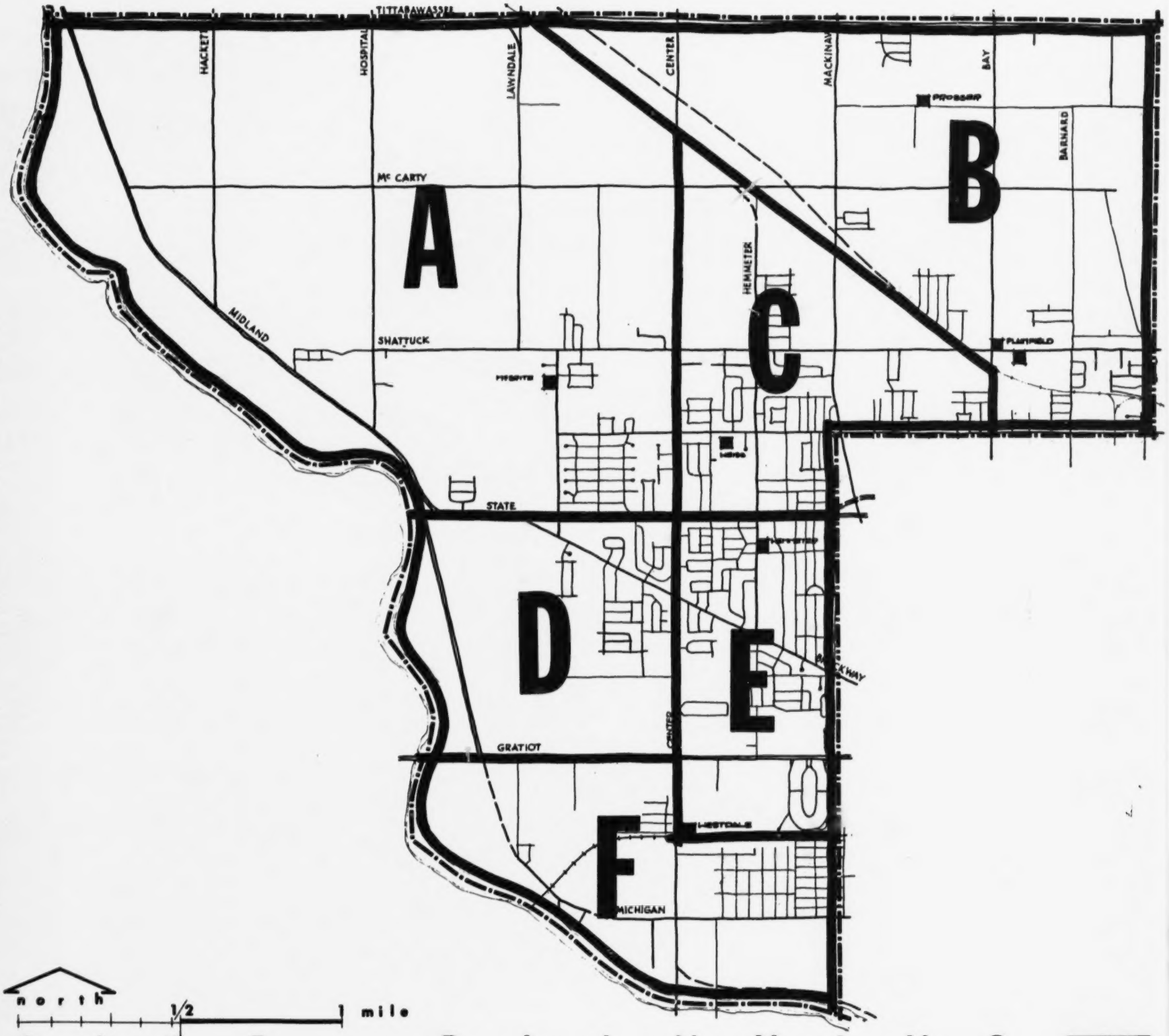
CAUDILL ROWLETT AND SCOTT
PLANNERS ARCHITECTS ENGINEERS

## COMMUNITY DIVISION

THE SIX COMMUNITIES SHOWN ON THE NEXT MAP HAVE BEEN DETERMINED BY THE PREVIOUS GROWTH FACTORS AND SHOW THE APPROXIMATE AREAS THAT WILL SERVE THE 5-8 SCHOOLS OF THE FUTURE.

THESE COMMUNITIES HAVE BEEN DEFINED TO CONFORM WITH THE PRESENT NEEDS, BUT WILL VARY FROM YEAR TO YEAR AS THE TOWNSHIP GROWS.

# COMMUNITY DIVISION




## SITE PLANNING

SAGINAW TOWNSHIP SCHOOLS
SAGINAW TOWNSHIP, MICHIGAN

CAUDILL ROWLETT AND SCOTT
PLANNERS ARCHITECTS ENGINEERS

## SCHOOL CENSUS TRACT PLAN

Two factors were analyzed to plan adequate school sites in a district:

1. Student distribution

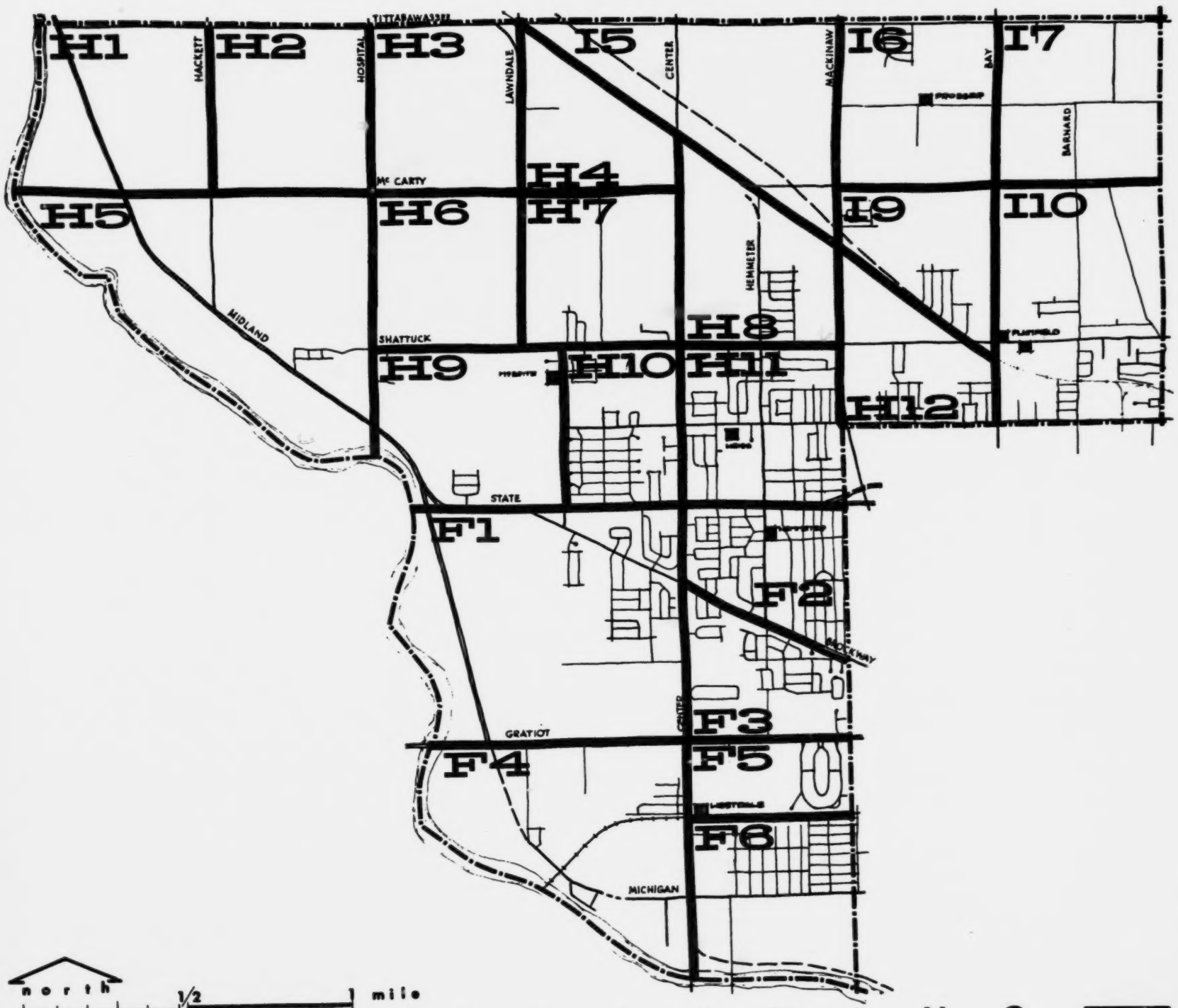
2. Density of the enrollment

The school census tract plan on the following chart indicates the bounderies of twenty-three tracts. The map closely coincides with the census tract plan that will be used for the metropolitan area of Saginaw during the U. S. Census of 1960.

The tract plan will enable the school administration to keep a constant check on the present distribution of students and a continuous evaluation of the Township school popolation. It is on this plan that the pre-school census and the projected school enrollment by grades have been interpreted.

Flexibility is important in planning tract plans. One of the census tract might comprise the entire neighborhood for a K-4 school, or it might involve three or four tracts depending upon the student density.

# SCHOOL CENSUS TRACTS




north 1/2 1 mile

SITE PLANNING

SAGINAW TOWNSHIP SCHOOLS

SAGINAW TOWNSHIP, MICHIGAN

CAUDILL ROWLETT AND SCOTT
PLANNERS ARCHITECTS ENGINEERS

## WHERE DO STUDENTS LIVE

THE PREVIOUS CHARTS SHOWED THE APPROXIMATE NUMBER OF STUDENTS AND HOW THEY WILL BE GROUPED. THE THIRD BASIC PROBLEM IS TO DETERMINE WHERE THEY WILL LIVE.

A DOT-MAP WAS FURNISHED BY THE ADMINISTRATIVE STAFF THAT SHOWED THE LOCATION OF ALL PRE-SCHOOL CHILDREN AND STUDENTS FROM KINDERGARDEN THROUGH 6TH GRADE.

TWO MAJOR CONSIDERATIONS WERE NECESSARY TO LOCATE THESE CHILDREN BY GROUPING AND CENSUS TRACT THROUGH 1980.

1. PROJECTION OF DENSITIES
2. GROWTH PATTERNS

## PROJECTION OF DENSITIES

THE ENROLLMENTS WERE FIRST PROJECTED BY DIRECT RATIO FOR EACH CENSUS TRACT AND EDUCATIONAL GROUPING. IN OTHER WORDS, IF A CENSUS TRACT HAD TEN K-4 STUDENTS IN 1960, AND THE K-4 ENROLLMENT FOR THE ENTIRE TOWNSHIP DOUBLED BY 1965, THIS TRACT WOULD HAVE TWENTY K-4 STUDENTS IN 1965.

THIS WAS BASED ON THE ASSUMPTION THAT ALL AREAS OF THE TOWNSHIP WOULD GROW AT EXACTLY THE SAME RATE. THIS, OF COURSE, WOULD NOT OCCUR.

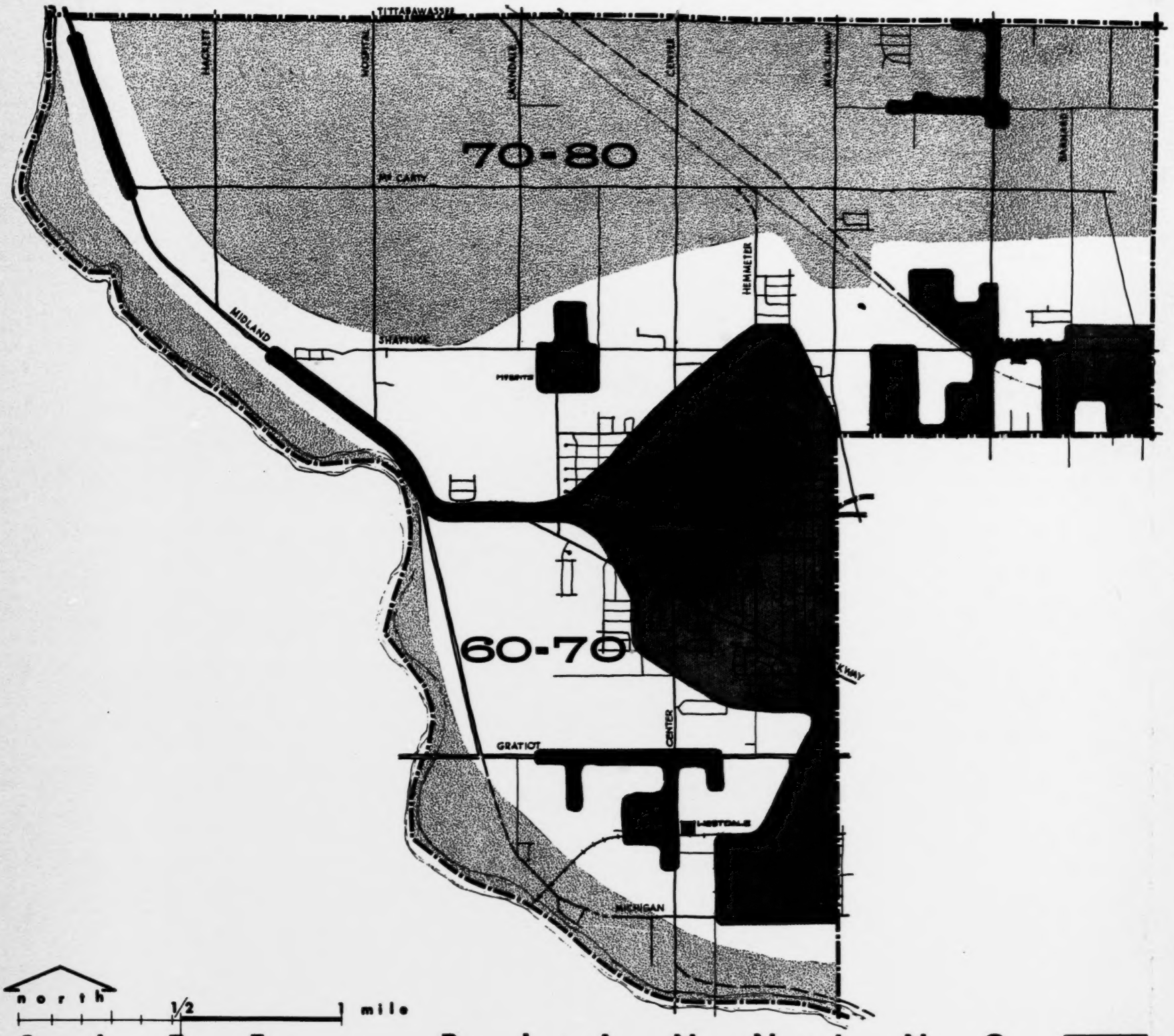
## GROWTH PATTERNS

THE GROWTH PATTERN IS A COMPOSITE PICTURE INTERPRETED FROM INTERVIEWS WITH THE ADMINISTRATIVE STAFF, TOWNSHIP OFFICIALS, METROPOLITAN PLANNING COMMISSION AND DEVELOPERS.

CALCULATIONS ARE SHOWN FOR EACH SCHOOL CENSUS TRACT INDICATING THE NUMBER OF STUDENTS IN EACH GROUP FOR THE YEARS 1960 THROUGH 1980 BASED ON UNIFORM GROWTH OF THE TOWNSHIP.

THE DARKEST AREA INDICATE THE GROWTH TO 1959. THE LIGHT TONE SHOWS THE ANTICIPATED GROWTH FROM 1960 TO 1970, AND THE MIDDLE TONES INDICATES THE MAJOR DEVELOPMENT PLAN AFTER 1970.

# GROWTH PATTERN




S I T E P L A N N I N G

S A G I N A W T O W N S H I P S C H O O L S

S A G I N A W T O W N S H I P , M I C H I G A N

CAUDILL ROWLETT AND SCOTT
PLANNERS ARCHITECTS ENGINEERS

## ADJUSTED SCHOOL CENSUS TRACTS

To adjust the school census tracts, we considered the following factors:

1. Natural and physical barriers of the Township
2. Rate in which public improvements are being made and will be made.
3. Rate and direction of real estate development.
4. Saturation of certain areas.
5. Maturity of neighborhoods.

The analysis of each tract is summarized on the following chart. It is obvious that these percentages will be altered by unforeseen development.

## PERCENTAGE ADJUSTMENT FACTORS FOR SCHOOL CENSUS TRACTS

RATED IN RELATION TO A STRAIGHT LINE PROJECTION OF ENROLLMENT TRENDS

| | 1965 | 1970 | 1980 | |
|---|---|---|---|---|
| **NORTH OF STATE STREET** | | | | |
| H-1 | +25% | +25% | +25% | EXPECTED DEVELOPMENT IN MIDLAND ROAD AREA |
| H-2 | -25% | -25% | -25% | UNAVAILABLE UTILITIES |
| H-3 | -25% | -25% | -25% | UNAVAILABLE UTILITIES |
| H-4 | -20% | 40% | -40% | UNAVAILABLE UTILITIES UNCERTAINTY OF LAND USE |
| H-5 | 0 | 0 | 0 | PLANNED SUBDIVISIONS ALONG MIDLAND ROAD |
| H-6 | -20% | -20% | -20% | AVAILABLE UTILITIES ENABLE AVERAGE GROWTH |
| H-7 | 0 | 0 | 0 | PLANNED SUBDIVISIONS INSURE AVERAGE GROWTH |
| H-8 | +100% | +110% | +110% | NEW HOUSING SHOULD DOUBLE FOR NEXT TWENTY YEARS |
| H-9 | +42% | +225% | +150% | SUBDIVISIONS ALONG STATE STREET PUSHING NORTHWARD |
| H-10 | +20% | +50% | +50% | SUBDIVISIONS SHOULD COVER ENTIRE TRACT |
| H-11 | -10% | -30% | -40% | PROPERTY DEVELOPED. GROWTH SHOULD LEVEL OFF |

PERCENTAGE ADJUSTMENT, CONTINUED

| | | | | |
|---|---|---|---|---|
| H-12 | 0 | +35% | +45% | APARTMENTS EXPECTED NORTH OF WEISS - NEW HOUSING EXPECTED NORTH OF SHATTUCK |
| 1-5 | -15% | -25% | -25% | UNAVAILABLE UTILITIES |
| 1-6 | -25% | -25% | -25% | UNAVAILABLE UTILITIES |
| 1-7 | -20% | -20% | -20% | UNAVAILABLE UTILITIES |
| 1-9 | 0 | 0 | 0 | RAILROAD TO THE SOUTH RETARDS RESIDENTIAL DEVELOPMENT. AVERAGE PROJECTION FOR TRACT IS EXPECTED |
| 1-10 | 0 | 0 | 0 | UTILITIES AND PROPOSED SUBDIVISIONS SUGGEST AVERAGE PROJECTION TREND |

SOUTH OF STATE STREET

| | | | | |
|---|---|---|---|---|
| F-1 | +100% | +100% | +100% | HIGHEST GROWTH EXPECTED HERE IN LARGEST TRACT |
| F-2 | -25% | -20% | -40% | HIGH DENSITY SUGGESTS LEVELING OFF ENROLLMENT |
| F-3 | 0 | 0 | 0 | NEW DEVELOPMENT ANTICIPATED HERE WITH FULLY DEVELOPED EAST SIDE INSURES AVERAGE PROJECTIONS |
| F-4 | -10% | 0 | +50% | SLOW GROWTH DURING FIRST 5 YEARS WITH BETTER THAN AVERAGE GROWTH EXPECTED IN 1980 |

PERCENTAGE ADJUSTMENT, CONTINUED

| | | | | |
|---|---|---|---|---|
| F-5 | 0 | 0 | +10% | SOME GROWTH ANTICIPATED WEST OF THE COUNTRY CLUB |
| F-6 | -10% | -20% | -10% | NEED FOR URBAN RENEWAL AND THREAT OF FLOOD CONTROL SUGGESTS BELOW AVERAGE PROJECTION FOR THIS AREA |

REFER TO THE NEXT PAGE FOR A TABULATION OF ADJUSTED SCHOOL CENSUS TRACTS.

SAGINAW TOWNSHIP SCHOOL DISTRICT
ADJUSTED ENROLLMENT PROJECTION

| TRACT | H-1 | H-2 | H-3 | H-4 | H-5 | H-6 | H-7 | H-8 | H-9 | H-10 | H-11 | H-12 | I-5 | I-6 | I-7 | I-9 | I-10 | F-1 | F-2 | F-4 | F-5 | F-6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | ADJ | TOTAL |
| K - 4 | 14 | 9 | 10 | 13 | 34 | 16 | 50 | 22 | 15 | 98 | 351 | 55 | 12 | 41 | 15 | 65 | 102 | 103 | 262 | 62 | 71 | 188 | 1688 |
| 5 - 8 | 12 | 7 | 8 | 10 | 20 | 10 | 31 | 7 | 8 | 50 | 203 | 41 | 10 | 11 | 10 | 39 | 64 | 53 | 182 | 54 | 43 | 120 | 1057 |
| 9 -12 | 8 | 3 | 4 | 8 | 15 | 6 | 18 | 5 | 7 | 34 | 175 | 31 | 6 | 9 | 8 | 21 | 47 | 43 | 157 | 42 | 19 | 109 | 856 |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | 3601 |
| K - 4 | 34 | 12 | 14 | 19 | 63 | 23 | 89 | 76 | 37 | 198 | 569 | 103 | 16 | 54 | 20 | 115 | 181 | 324 | 326 | 115 | 126 | 304 | 2992 |
| 5 - 8 | 22 | 9 | 11 | 15 | 45 | 17 | 58 | 44 | 20 | 125 | 337 | 79 | 14 | 24 | 11 | 74 | 118 | 202 | 270 | 91 | 76 | 212 | 2019 |
| 9 -12 | 17 | 4 | 6 | 12 | 31 | 10 | 35 | 16 | 16 | 87 | 329 | 61 | 10 | 18 | 16 | 47 | 97 | 186 | 211 | 76 | 36 | 184 | 1633 |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | 6644 |
| K - 4 | 48 | 15 | 17 | 22 | 76 | 36 | 112 | 118 | 175 | 301 | 575 | 181 | 24 | 72 | 26 | 146 | 229 | 452 | 430 | 131 | 159 | 341 | 3780 |
| 5 - 8 | 38 | 11 | 15 | 18 | 47 | 36 | 74 | 64 | 80 | 174 | 333 | 93 | 18 | 20 | 16 | 98 | 145 | 248 | 334 | 117 | 94 | 286 | 2520 |
| 9 -12 | 25 | 4 | 7 | 14 | 34 | 13 | 39 | 54 | 74 | 124 | 305 | 84 | 11 | 16 | 15 | 57 | 123 | 212 | 290 | 93 | 59 | 267 | 2100 |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | 8400 |
| K - 4 | 52 | 21 | 30 | 24 | 97 | 47 | 142 | 178 | 116 | 381 | 573 | 255 | 27 | 92 | 33 | 184 | 288 | 580 | 386 | 254 | 219 | 479 | 4725 |
| 5 - 8 | 45 | 15 | 20 | 20 | 60 | 30 | 93 | 102 | 106 | 225 | 315 | 198 | 37 | 25 | 24 | 117 | 186 | 312 | 314 | 239 | 130 | 321 | 3150 |
| 9 -12 | 33 | 9 | 10 | 17 | 46 | 20 | 58 | 94 | 104 | 159 | 307 | 147 | 25 | 22 | 18 | 65 | 149 | 264 | 315 | 192 | 73 | 298 | 2625 |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | 10,500 |

## PROJECTED ENROLLMENTS AND DENSITIES

THE NEXT THREE MAPS ARE A COMPOSITE PICTURE OF

HOW MANY STUDENTS

HOW THEY ARE GROUPED AND

WHERE THEY LIVE

FOR THE YEARS 1960, 1965, 1970 AND 1980. THESE THREE MAPS, IN ESSENCE, ARE THE LONG-RANGE PLAN. THEY PROVIDE:

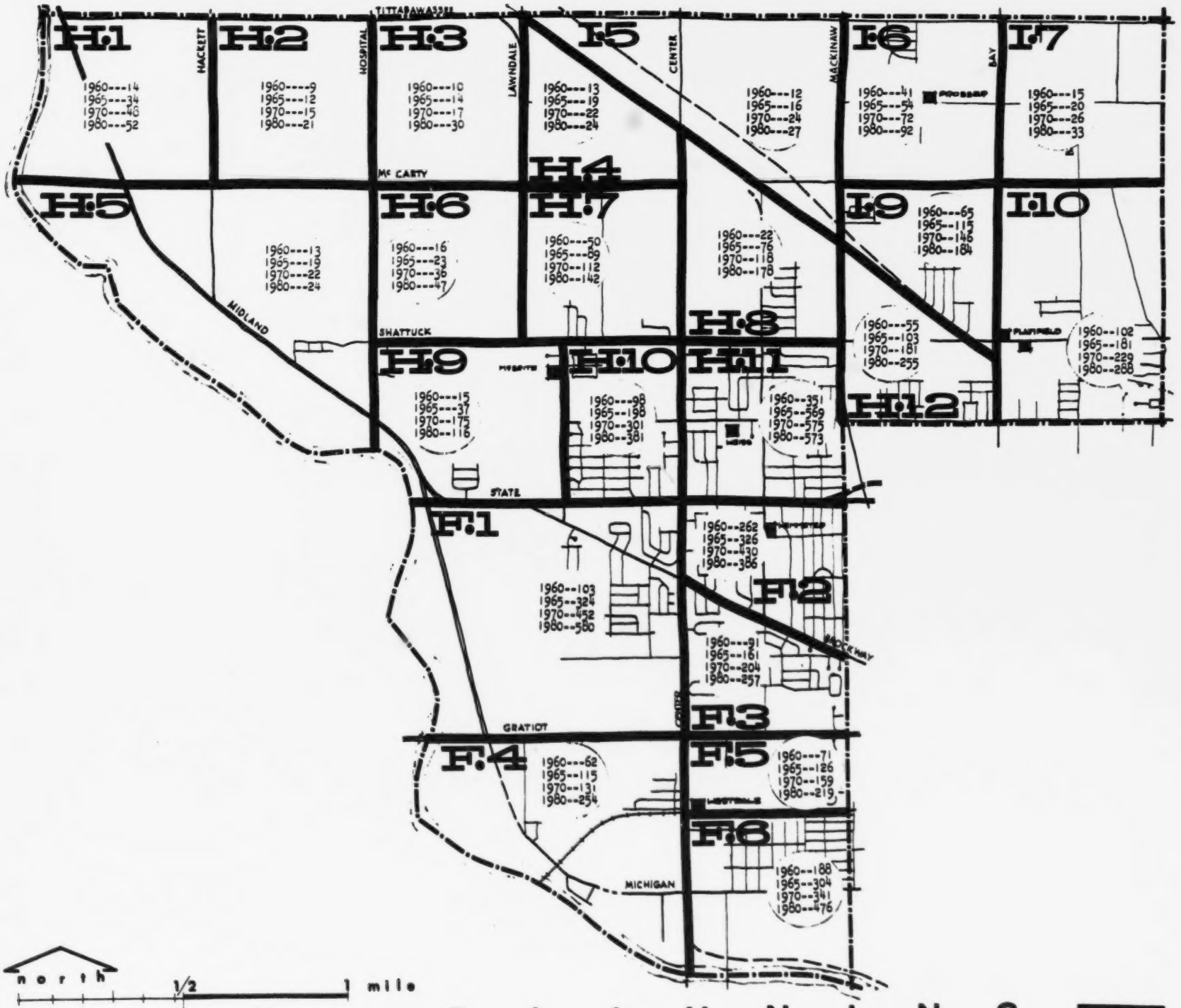
1. A FRAMEWORK FOR YEARLY EVALUATION AND ADJUSTMENT OF THE ENTIRE PLAN.

2. A UNIFORM SYSTEM OF RECORDING INFORMATION PERTAINING TO SCHOOL PLANNING.

3. A QUICK REFERENCE FOR THE DISTRIBUTION OF STUDENTS.

4. A GUIDE IN DETERMINING FUTURE SITE NEEDS.

# K-4 PROJECTED ENROLLMENT



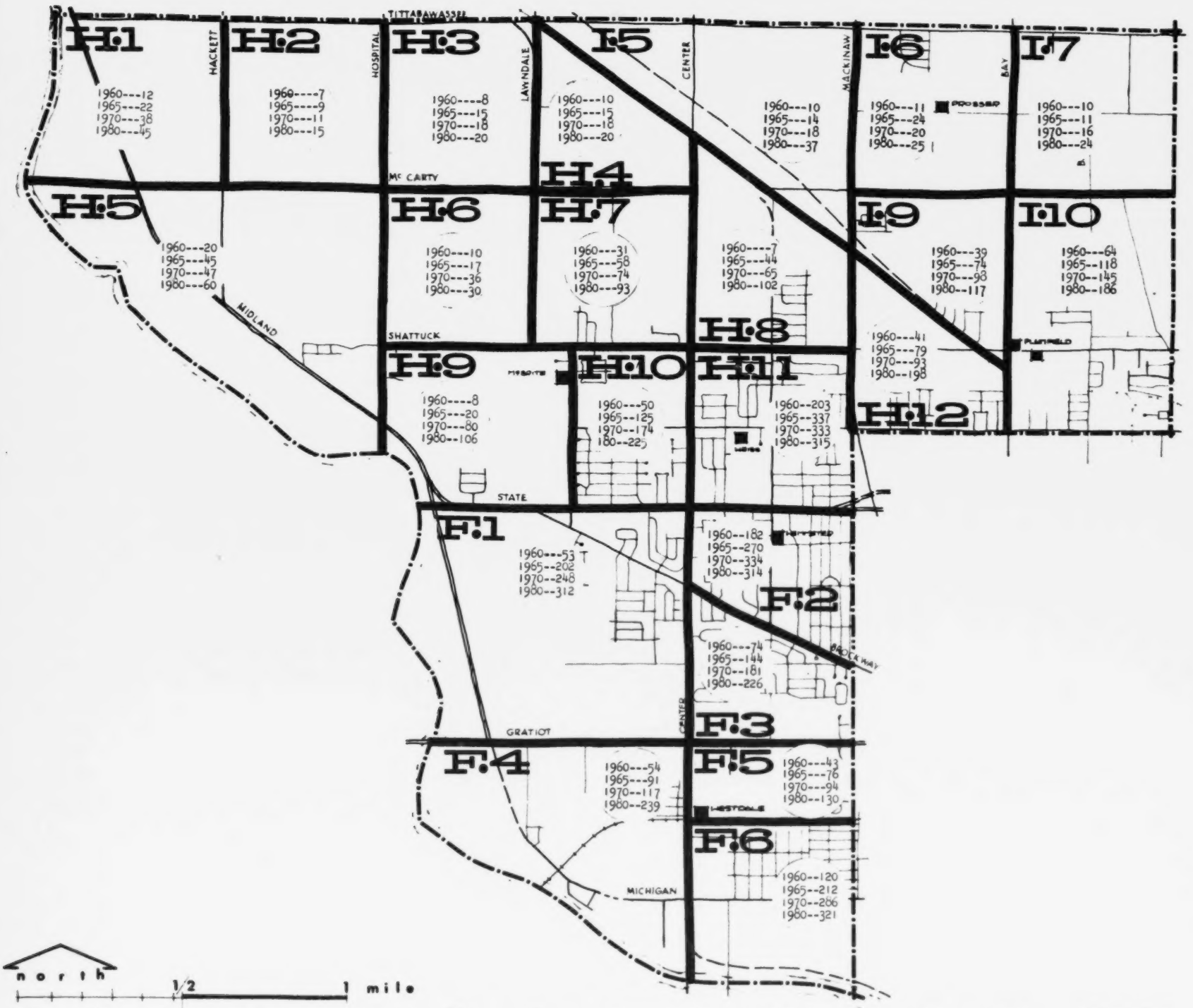

SITE PLANNING

SAGINAW TOWNSHIP SCHOOLS

SAGINAW TOWNSHIP, MICHIGAN

CAUDILL ROWLETT AND SCOTT
PLANNERS ARCHITECTS ENGINEERS

# 5-8 PROJECTED ENROLLMENT




SITE PLANNING

SAGINAW TOWNSHIP SCHOOLS

SAGINAW TOWNSHIP, MICHIGAN

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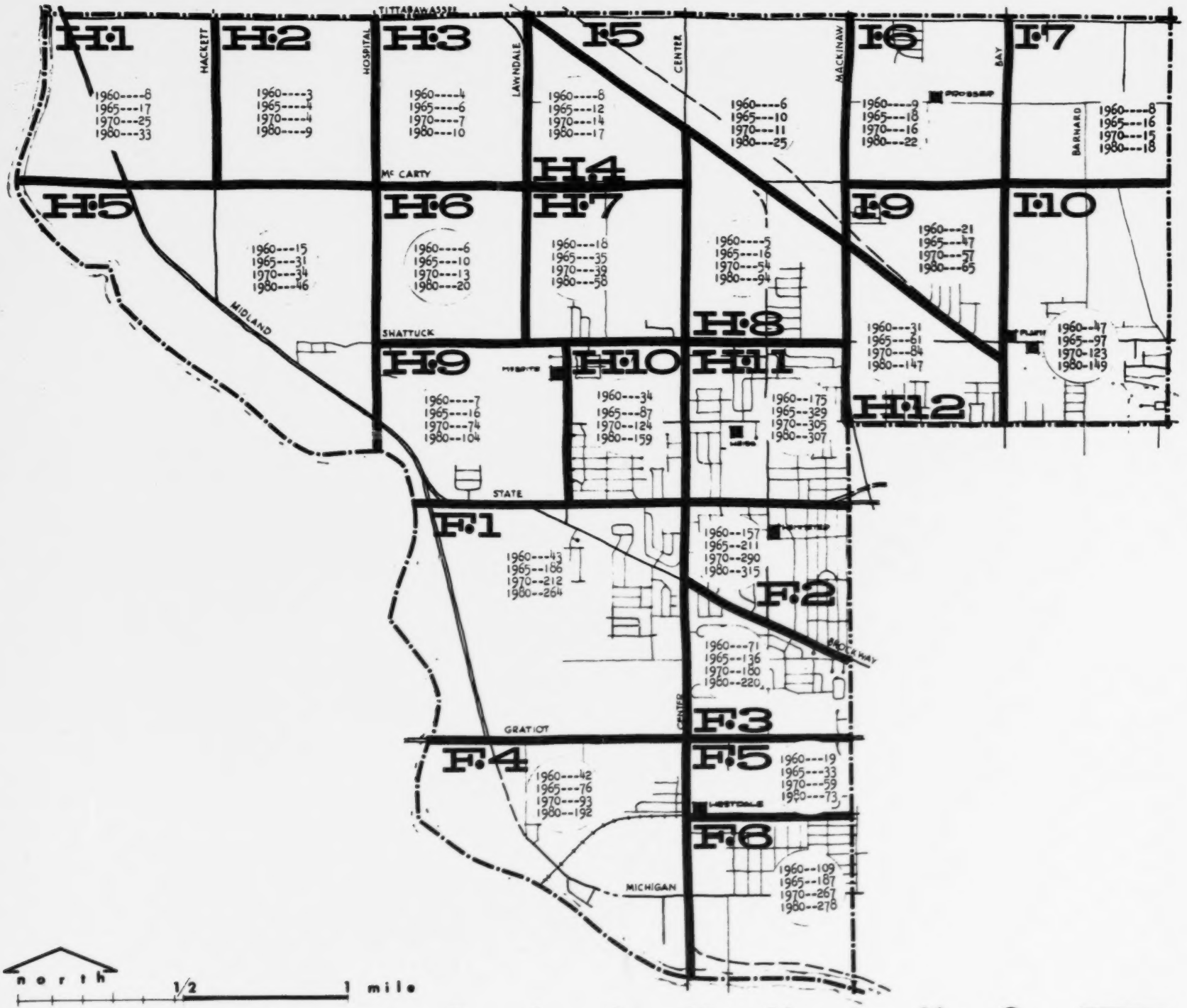
# 9-12 PROJECTED ENROLLMENT




SITE PLANNING

SAGINAW TOWNSHIP SCHOOLS

SAGINAW TOWNSHIP, MICHIGAN

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## PROPOSED SITES 1960 - 1980

THE PROPOSED SITES SHOWN ON THE NEXT MAPS ARE BASED ON A STUDY OF:

EXISTING SCHOOLS

NEW SCHOOLS NEEDED

CHARACTERISTICS OF A GOOD SCHOOL SITE

THE MAPS SHOW THE NUMBER AND TYPES OF SITES NEEDED, PLUS THE GENERAL LOCATION. AN ATTEMPT HAS BEEN MADE TO LOCATE SCHOOLS IN A VICINITY THAT MIGHT HAVE THREE OR FOUR OPTIONAL SITES AVAILABLE.

THE ACTUAL SITE WOULD BE CHOSEN AFTER STUDYING THE SITES IN THE VICINITY AND SELECTING THE ONE WITH THE BEST CHARACTERISTICS.

FOR INSTANCE, THE NEW 5-8 SITE ON THE 1960 MAP IS LOCATED AT SHATTUCK AND MACKINAW. ANY OTHER SITES AVAILABLE IN THIS LOCATION WOULD BE PROPERLY LOCATED FOR THIS SCHOOL.

## EXISTING DISTRICT - 1958

THE MAP ON THE FOLLOWING PAGE SHOWS THE LOCATION AND BOUNDARIES OF THE EXISTING SCHOOLS. CAPACITIES ARE BASED ON TWENTY FIVE PER CLASSROOM.

PROSSER SCHOOL
CLASSROOMS - 3 CAPACITY - 75

SITE - SMALL, BUT ADDITIONAL LAND AVAILABLE.
LOCATION - GOOD FOR K-4..

PLAINFIELD SCHOOL
CLASSROOMS - 10 CAPACITY - 250

SITE - SMALL, BUT ADDITIONAL LAND AVAILABLE.
LOCATION - GOOD FOR K-4 OR COULD BE CONVERTED TO A 5-8 IN THE FUTURE.

McBRITE SCHOOL
CLASSROOMS - 12 CAPACITY - 300

SITE - ADEQUATE FOR K-4.
LOCATION - GOOD FOR K-4 OR COULD BE CONVERTED TO 5-8 IN THE FUTURE.

WEISS SCHOOL
CLASSROOMS - 14 CAPACITY - 350

SITE - ADEQUATE FOR K-4.
LOCATION - EXCELLENT FOR K-4.

WESTDALE SCHOOL
CLASSROOMS - 15 CAPACITY - 375

SITE - ADEQUATE FOR K-4 OR 5-8.
LOCATION - GOOD FOR 5-8.

## EXISTING DISTRICT - 1958, CONTINUED

HEMMETER SCHOOL

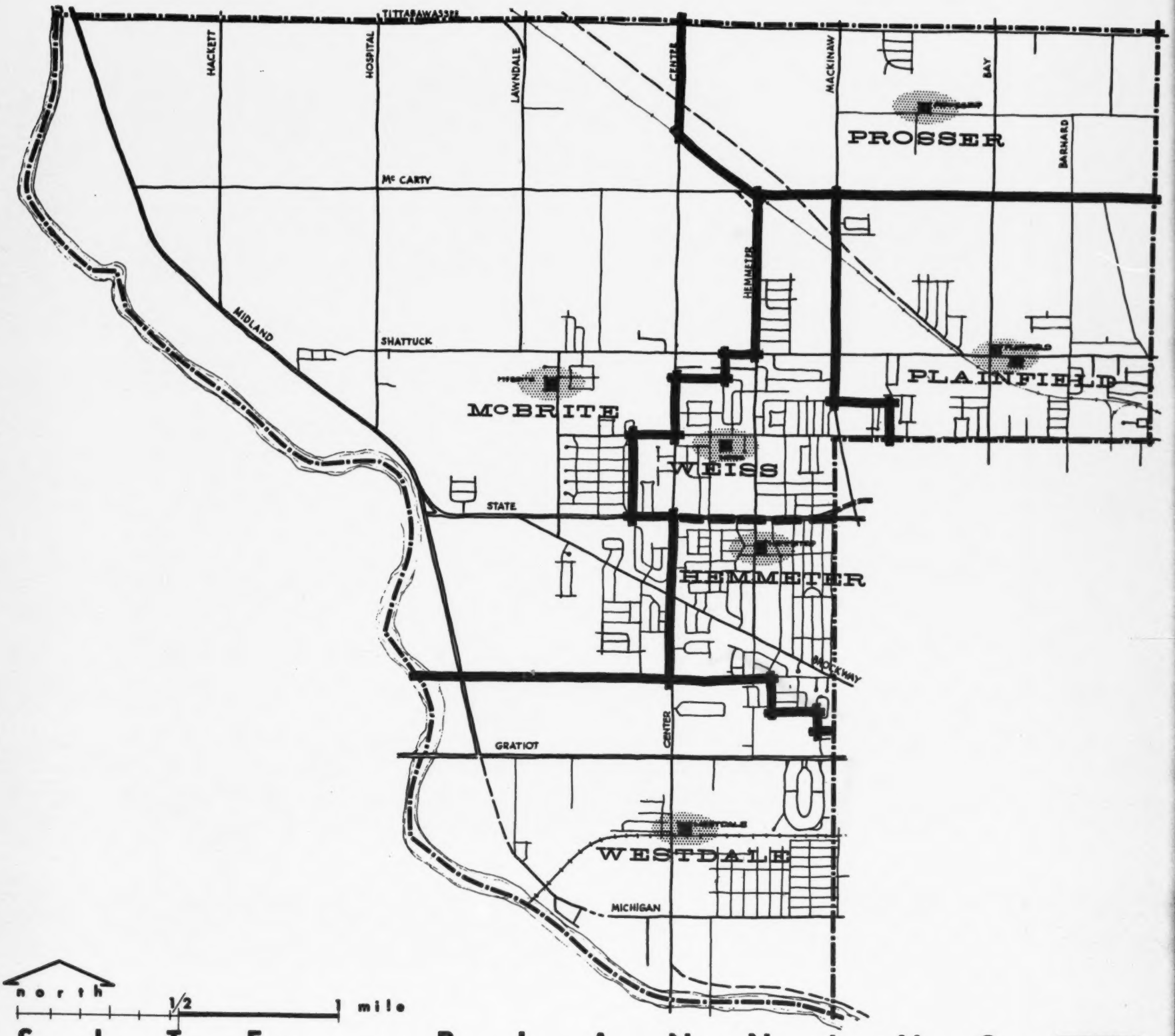
CLASSROOMS - 21 CAPACITY - 525

SITE - NOT ADEQUATE FOR K-4 OR 5-8.
LOCATION - GOOD FOR K-4.

OTTO SCHOOL

REFER TO STUDY OF LOCATION OR ADMINISTRATION AND SERVICE FACILITIES.

# EXISTING DISTRICT 1958




SITE PLANNING

SAGINAW TOWNSHIP SCHOOLS

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## NEW SCHOOLS

A STUDY OF THE PROJECTED ENROLLMENTS ON THE CENSUS TRACT MAPS SHOWS THAT THE TOWNSHIP WILL NEED ADDITIONAL SCHOOL FACILITIES AS LISTED BELOW. THIS IS BASED ON PROSSER AND PLAINFIELD BEING EXPANDED TO 300 STUDENTS AND THE REMAINDER OF THE EXISTING SCHOOLS FILLED TO CAPACITY.

1960

2 NEW 5-8 SCHOOLS

1965

5 NEW K-4 SCHOOLS
1 NEW 5-8 SCHOOL (CONVERT WESTDALE TO 5-8)
1 NEW 9-12 SCHOOL

1970

2 NEW K-4 SCHOOLS
1 NEW 9-12 SCHOOL

1980

2 NEW K-4 SCHOOLS
2 NEW 5-8 SCHOOLS

## CHARACTERISTICS OF A GOOD SITE

AFTER THE GENERAL LOCATION OF A SITE IS DETERMINED, THE DIFFERENT PARCELS OF LAND SHOULD BE EVALUATED IN TERMS OF THE CHARACTERISTICS BELOW:

1. ADEQUATE SIZE - PRESENT AND FUTURE.
2. CENTER OF STUDENT POPULATION.
3. GOOD CIRCULATION - TO AND AROUND SITE.
4. PROPER INSULATION FROM SURROUNDINGS.
5. AREAS PROPERLY ZONED.
6. NO OFF-SITE DISTURBANCE - NATURAL OR ARTIFICIAL.
7. GOOD SOIL CONDITIONS.
8. GOOD UTILITIES.
9. GOOD AESTHETIC ENVIRONMENT (EXAMPLE: TREES)
10. REASONABLE COST.
11. PROPER PROPORTIONS
12. AVAILABILITY

### GENERAL SITE STANDARDS

| GRADES | ENROLLMENT | ACREAGE | WALK RADIUS | ACCESSIBILITY |
|---|---|---|---|---|
| K-4 | 250-350 | 10 | $\frac{1}{2}$ | WALK |
| 5-8 | 500-600 | 25 | $1\frac{1}{2}$ | WALK AND MOBILE |
| 9-12 | 1200-1400 | 50 | 2 | MOBILE |

## PROPOSED SITES

THE YEARS 1960, 1965, 1970 AND 1980, HAVE BEEN ARBITRARILY CHOSEN TO SHOW SITE REQUIREMENTS FOR THESE PERIODS. THE YEARS IN BETWEEN ARE EQUALLY, IF NOT MORE, IMPORTANT.

THE PROBLEM OF TRANSITION WILL INVOLVE QUESTIONS THAT WILL HAVE TO BE WORKED OUT ON A YEAR TO YEAR BASIS. DETAILED STUDIES OF TRANSPORTATION, SCHEDULING, BUILDING PROGRAM AND EDUCATIONAL GROUPING WILL BE REQUIRED.

A SUMMARY OF STUDENT ENROLLMENT PRECEDES EACH MAP OF PROPOSED SITES.

## 1960 PROPOSED SITES

NORTH SECTION:

| Grouping | Number of Students |
|---|---|
| K-4 | 914 |
| 5-8 | 537 |
| 9-12 | 409 |

RECOMMENDATIONS:

1. K-4 STUDENTS HOUSED IN EXISTING CLASSROOMS.
2. LOCATE NEW 5-8 SCHOOL IN H-8.
3. LOCATE SECOND HIGH SCHOOL SITE IN H-8. *

SOUTH SECTION:

| Grouping | Number of Students |
|---|---|
| K-4 | 774 |
| 5-8 | 520 |
| 9-12 | 447 |

RECOMMENDATIONS:

1. K-4 STUDENTS HOUSED IN EXISTING CLASSROOMS.
2. LOCATE NEW 5-8 SCHOOL IN F-1.
3. LOCATE FIRST HIGH SCHOOL SITE IN F-1. *

*NOTES ON HIGH SCHOOL LOCATIONS:

1. THE SITES ARE LOCATED GENTRALLY TO THE AREA THEY WILL ULTIMATELY SERVE.

2. THE FIRST HIGH SCHOOL IS LOCATED IN THE SOUTH SECTION BECAUSE THIS IS THE MOST MATURE RESIDENTIAL AREA AND CONSEQUENTLY, HAS THE GREATEST NUMBER OF HIGH SCHOOL STUDENTS AT THE PRESENT TIME.

3. AVAILABILITY OF A LARGE BLOCK OF LAND AT A REASONABLE COST WAS A MAJOR CONSIDERATION.

# 1960 PROPOSED SITES

KEY · SCHOOL SITES

- existing K-4
- projected K-4
- existing 5-8
- projected 5-8
- projected high school
- 40 acres

north 1/2 1 mile

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## 1965 PROPOSED SITES

| NORTH SECTION: GROUPING | NUMBER OF STUDENTS |
|---|---|
| K-4 | 1,626 |
| 5-8 | 1,024 |
| 9-12 | 804 |

RECOMMENDATIONS:

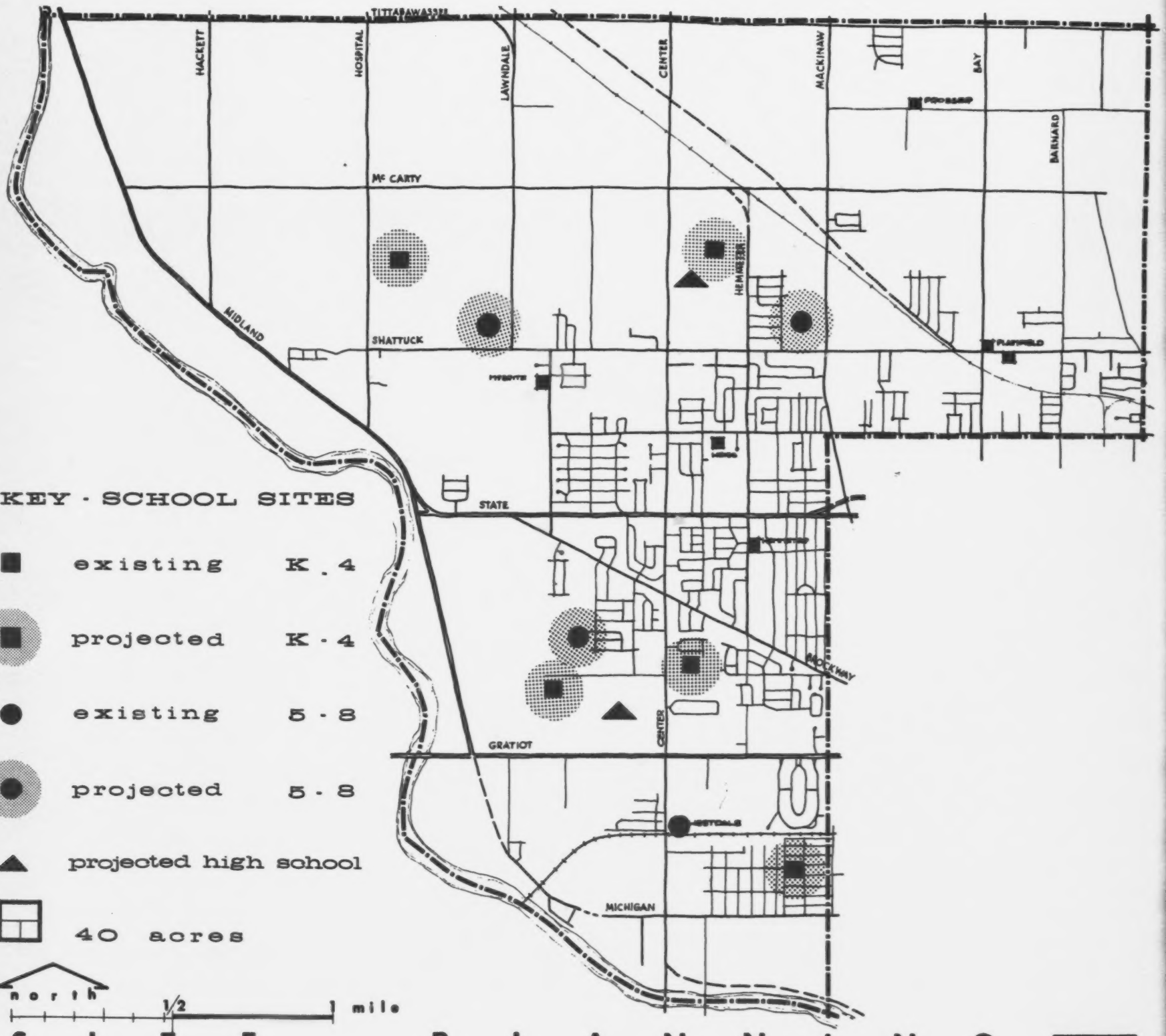
1. LOCATE NEW K-4 IN H-6.
2. LOCATE NEW K-4 IN H-8.
3. ADDITIONS TO PROSSER.
4. LOCATE NEW 5-8 IN H-6

| SOUTH SECTIONS: GROUPING | NUMBER OF STUDENTS |
|---|---|
| K-4 | 1,366 |
| 5-8 | 995 |
| 9-12 | 829 |

RECOMMENDATIONS:

1. LOCATE NEW K-4 IN F-1.
2. LOCATE NEW K-4 IN F-3.
3. LOCATE NEW K-4 IN F-6.
4. CONVERT WESTDALE TO 5-8 SCHOOL.

# 1965 PROPOSED SITES




S I T E P L A N N I N G

S A G I N A W T O W N S H I P S C H O O L S

S A G I N A W T O W N S H I P , M I C H I G A N

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## 1970 PROPOSED SITES

| NORTH SECTION: GROUPING | NUMBER OF STUDENTS |
|---|---|
| K-4 | 2,063 |
| 5-8 | 1,280 |
| 9-12 | 999 |

RECOMMENDATIONS:

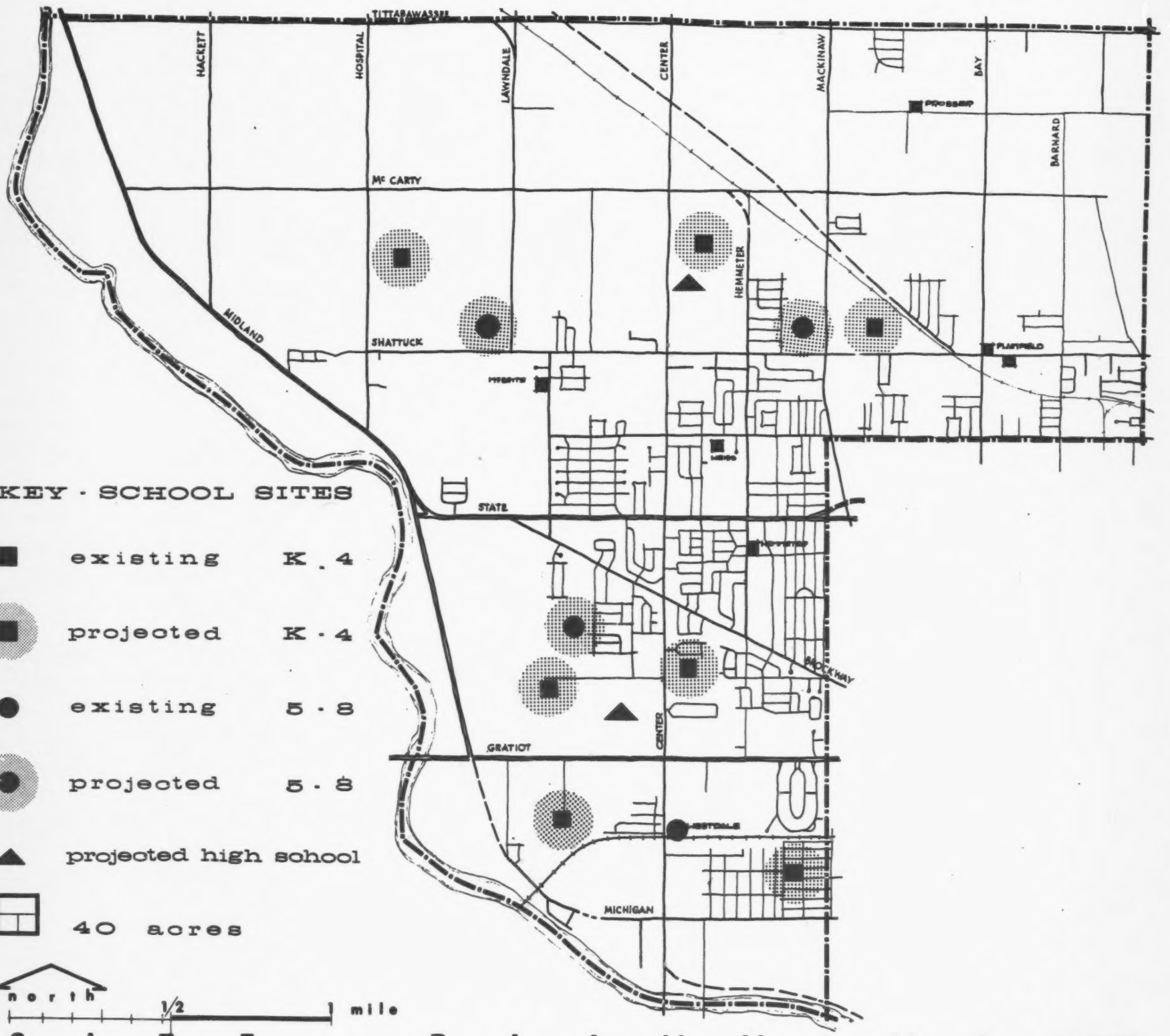
1. LOCATE NEW K-4 SCHOOL IN H-12.
2. NEW HIGH SCHOOL ON EXISTING H-8 SITE.

| SOUTH SECTION: GROUPING | NUMBER OF STUDENTS |
|---|---|
| K-4 | 1,717 |
| 5-8 | 1,240 |
| 9-12 | 1,101 |

RECOMMENDATIONS:

1. LOCATE NEW K-4 IN F-4.

# 1970 PROPOSED SITES




KEY · SCHOOL SITES

- existing K.4
- projected K-4
- existing 5-8
- projected 5-8
- projected high school
- 40 acres

north 1/2 1 mile

SITE PLANNING

SAGINAW TOWNSHIP SCHOOLS

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## 1980 PROPOSED SITES

| NORTH SECTION: Grouping | Number of Students |
|---|---|
| K-4 | 2,550 |
| 5-8 | 1,608 |
| 9-12 | 1,263 |

Recommendations:

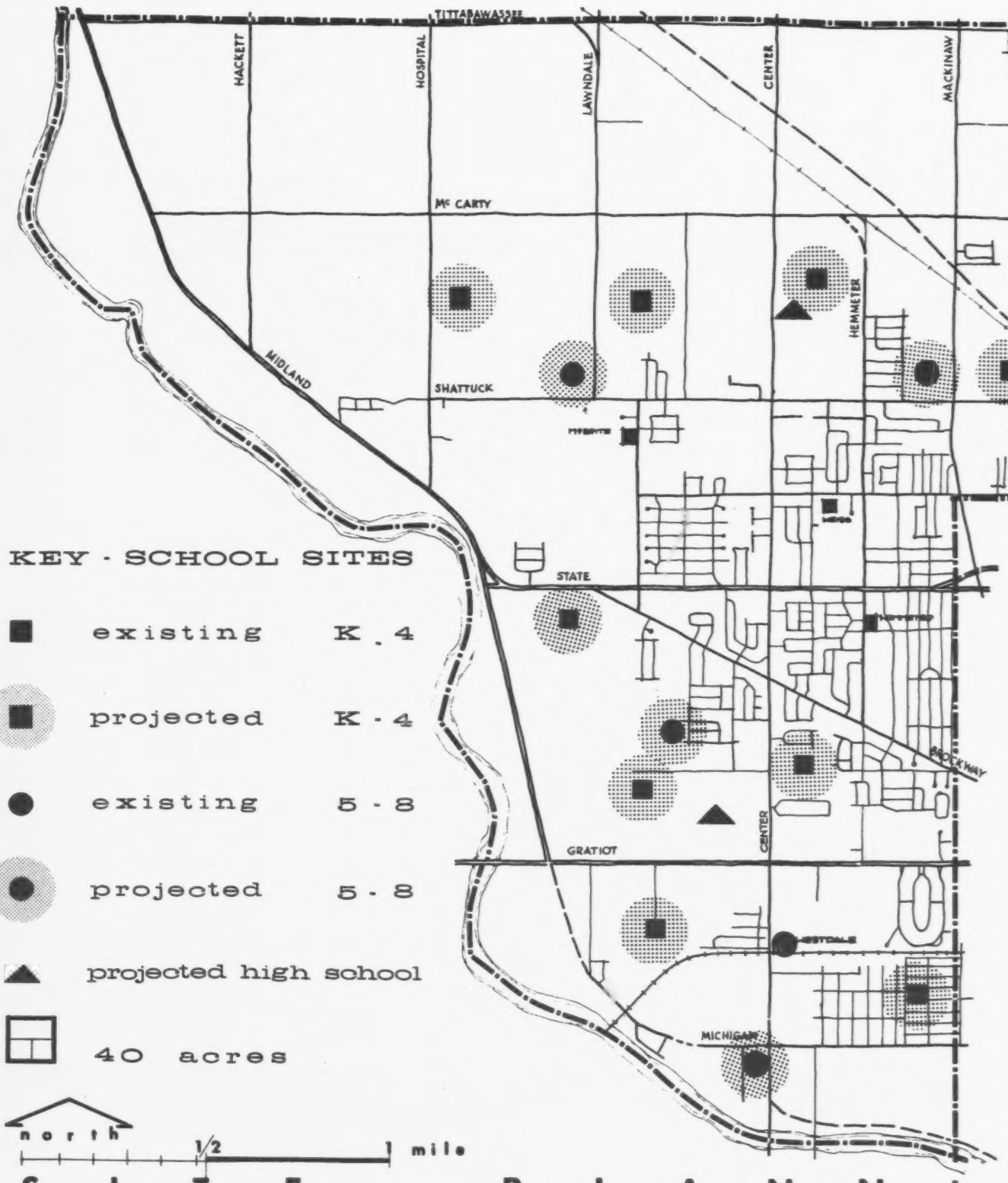
1. Locate new K-4 in H-7.
2. Locate new 5-8 in I-9.

| SOUTH SECTION: Grouping | Number of Students |
|---|---|
| K-4 | 2,175 |
| 5-8 | 1,542 |
| 9-12 | 1,362 |

Recommendations:

1. Locate new K-4 in F-1.
2. Locate new 5-8 in F-4.

# 1980 PROPOSED SITES




KEY · SCHOOL SITES

- existing K-4
- projected K-4
- existing 5-8
- projected 5-8
- projected high school
- 40 acres

north 1/2 1 mile

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## LOCATION
## ADMINISTRATION AND SERVICE FACILITIES

AS PART OF THE PLANNING, AN INVESTIGATION HAS BEEN MADE FOR THE LOCATION OF THE ADMINISTRATION AND CENTRAL SERVICE FACILITIES. THE MAP ON THE NEXT PAGE SHOWS THE LOCATIONS THAT WERE CONSIDERED. THE VARIOUS SITES ARE:

### LOCATION "A" - HEMMETER SCHOOL

THIS SCHOOL IS EXPECTED TO HAVE EXTRA CLASSROOM SPACE THAT WOULD BE UTILIZED AS THE ADMINISTRATIVE OFFICES. THIS CENTRAL LOCATION IS GOOD, BUT THE SITE IS TOO SMALL TO ADD ANY CENTRAL SERVICE AND STORAGE FACILITIES.

### LOCATION "B" - NEW SITE ON STATE STREET

IDEALLY, THIS WOULD BE THE BEST SOLUTION. BUY LAND ON STATE STREET BECAUSE IT IS CENTRALLY LOCATED AND BUILD ALL THE FACILITIES NEEDED.

THE DISADVANTAGES ARE COST OF LAND AND COST OF BUILDINGS. THIS IS NOT AN ECONOMICAL SOLUTION.

### LOCATION "C" - NEW HIGH SCHOOL

THIS IS NOT A CENTRAL LOCATION, BUT THERE IS SOME ADVANTAGE IN BEING NEAR THE HIGH SCHOOL.

THE DISADVANTAGES ARE BUYING LAND AND BUILDING NEW FACILITIES.

### LOCATION "D" - PRESENT LOCATION

THIS IS NOT A CENTRAL LOCATION, BUT IT WOULD UTILIZE EXISTING PROPERTY AND BE ECONOMICAL.

## LOCATION, CONTINUED

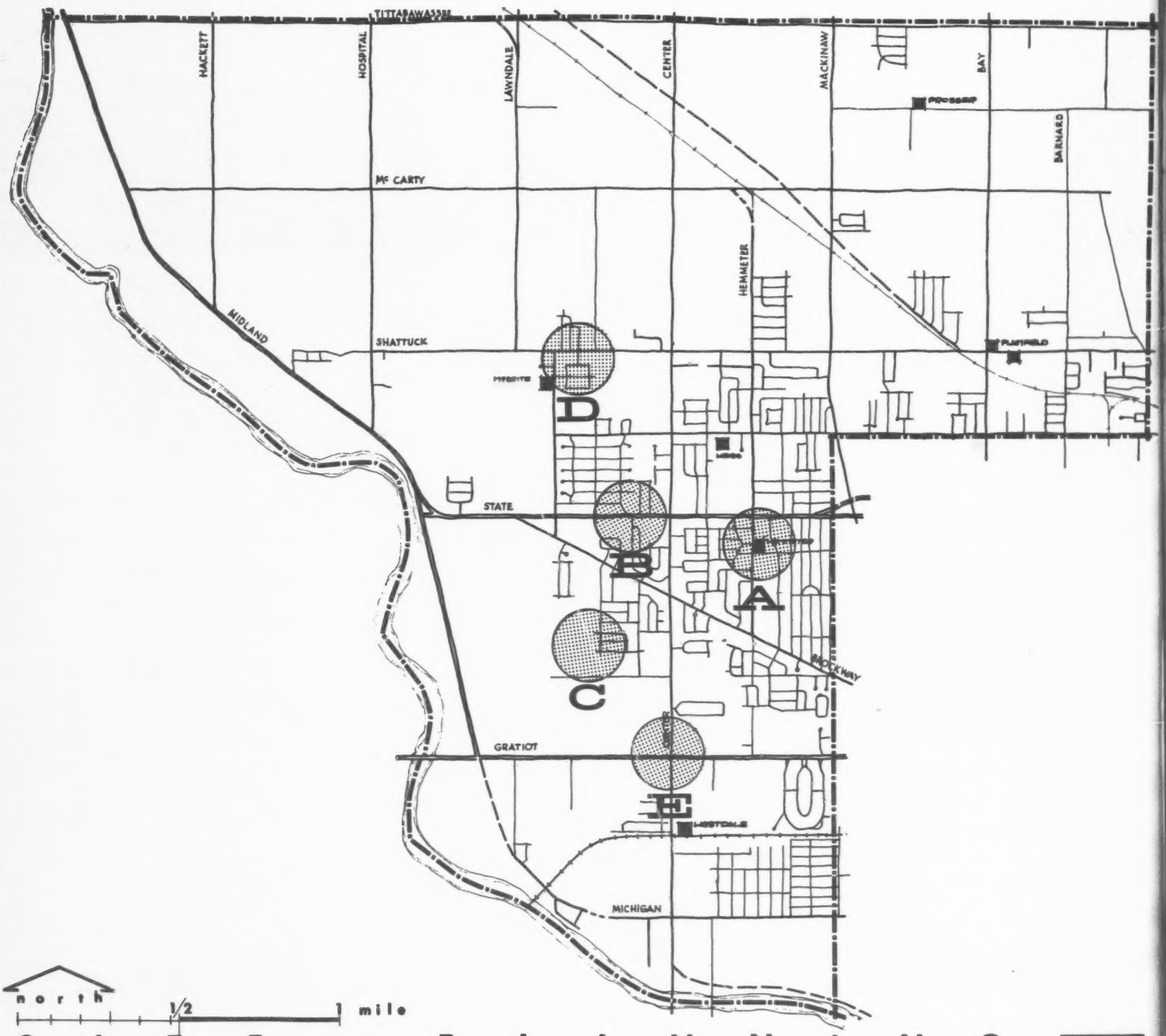
### LOCATION "E" - OTTO SCHOOL

THIS SITE IS ADJACENT TO MAIN TRAFFIC ARTERIES ALTHOUGH IT IS NOT CENTRALLY LOCATED. USING THIS SITE AND REMODELING THE BUILDING WOULD BE AN ECONOMICAL SOLUTION. THIS ALSO SOLVES THE PROBLEM OF HOW TO DISPOSE OF THIS TWO CLASS-ROOM SCHOOL.

### RECOMMENDATION

LOCATION "E" - UTILIZE THE SITE, REMODEL THE EXISTING BUILDINGS AND BUILD NEW FACILITIES AS NEEDED.

# LOCATION - ADMINISTRATION & SERVICE FACILITIES




## SITE PLANNING

SAGINAW TOWNSHIP SCHOOLS
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## PLANNING FACTORS

A LIST OF FACTORS AFFECTING THE FINAL SITE LOCATION IS INCLUDED HERE TO INDICATE THE COMPREHENSIVE NATURE OF PLANNING. IT SHOULD BE EMPHASIZED THAT ASSUMPTIONS BASED ON PROFESSIONAL EXPERIENCE WERE MADE ON MANY OF THE FACTORS. THIS IS PART OF PLANNING.

IF A PLAN HAS INHERENT QUALITIES OF FLEXIBILITY IT CAN BE ADJUSTED AS THE ASSUMPTIONS PROVE OR DISPROVE THEMSELVES WITHOUT AFFECTING THE TOTAL PLAN. THE PLANNING SYSTEM USED IN THIS REPORT HAS THE QUALITY OF CHANGE BUILT IN.

1. EXISTING AND FUTURE TRAFFIC ARTERIES.
2. RAILROADS.
3. TRAVELING DISTANCES - TRANSPORTATION.
4. EDUCATIONAL PROGRAM
5. COMMUNITIES.
6. UTILITIES - PUBLIC IMPROVEMENTS.
7. AVAILABILITY OF LAND.
8. USE OF EXISTING SCHOOLS.
9. EXISTING AND FUTURE AREAS OF GROWTH.
10. SATURATION OF AREAS.
11. AGE GROUPS - FAMILY PROFILES.
12. EXISTING AND FUTURE LAND USE.
13. NATIONAL, STATE AND LOCAL POPULATION TRENDS.
14. METROPOLITAN PLANNING FACTORS AFFECTING THE TOWNSHIP.